

HARDWARE ACCELERATOR PERSONALITY COMPILER

ABSTRACT OF THE DISCLOSURE

Error-free state tables are automatically generated from a specification of a group of desired performable functions, such as are provided in a programming language in a formal notation such as Backus-Naur form or a derivative thereof by discriminating tokens corresponding to respective performable functions, identifications, arguments, syntax, grammar rules, special symbols and the like. The tokens may be recursive (e.g. infinite), in which case they are transformed into a finite automata which may be deterministic or non-deterministic. Non-deterministic finite automata are transformed into deterministic finite automata and then into state transitions which are used to build a state table which can then be stored or, preferably, loaded into a finite state machine of a hardware parser accelerator to define its personality.